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May 20, 1998

Secretary
Federal Communications Commission
1919 M Street NW
Washington, D.C. 20554

In the Matter of: RM 9267

Dear Sir / Madam,

Enclosed are my formal comments regarding RM 9267, a proposal by the Land Mobile Communications Council to acquire additional spectrum usage encompassing, inter alia, 420 MHz to 450 MHz.

Sincerely,

Owen Wormser
K6LEW

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Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
Proposed Reallocation of 420	)	
To 430 MHz and 440 to 450 MHz	)	**RM 9267**
From the Federal; Government to	)	
The Private Mobile Radio Service	)	

To: The Commission

Comments On
Petition For Rule Making
Submitted By The
Land Mobile Communications Council

I am an Amateur Radio licensed operator (K6LEW) making extensive use of the secondary Amateur Radio Service (ARS) frequency allocations from 420 MHz to 450 MHz. I am opposed to RM 9267 submitted by the Land Mobile Communications Council (LMCC). I believe the LMCC petition seeking access to 70 cms is incompatible with continued ARS use of this secondary allocation. Though the LMCC offers a possible "sharing arrangement" with the ARS, they have not provided the details for consideration as to how this would be accomplished.

My specific comments follow and are drawn from my capacity as an ARS two-way, full-duplex FM repeater owner/operator; President of the Northern Virginia FM Association (NVFMA); President of the Middle Atlantic FM and Repeater Council (T-MARC); and past-President / current Director of the National Frequency Coordinators' Council.

I own and operate five repeaters located strategically around the Washington D.C. metro area. I have well over $100,000.00 invested in these systems. They provide emergency

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communications for Fairfax, Spotsylvania, Prince William, Prince George's and Montgomery Counties in addition to providing communications for numerous public service events in this area, e.g. marathons, Cancer walks, SKYWARN (ARS system for severe weather warning operated in conjunction with NOAA), et al. I do not believe the LMCC proposal to share the present allocation to be compatible with my system. The reason for my contention is my repeaters operate in the upper spectrum LMCC is seeking, while my control and linking systems operate in the lower segment of the spectrum they seek. Additional interference (above that already being experienced in this area) in either segment would negate the capability of my system to perform given the linking and interconnectivity involved. Moving my systems to another allocation available to the ARS would be beyond my financial means and therefore my system, which has served the defined area for more than 20 years, would no longer be available. Presently, I have more than 1000 local users of the system as witnessed by membership in the NVFMA and an untold number of transient users. My system is used for emergency preparedness training as well as exercises and real events. The Virginia RACES / ARES organization and the National Capital ARES Council (NCAC) uses the capabilities afforded by my system on a recurring and continuing basis. Their report to me that the loss of this system would create a severe void in their capability to provide the support to State and Local government services which they presently provide, is further evidence of the importance and public service contribution attached to these systems.

In my capacity as President of T-MARC, I can report we have more than 1256 systems coordinated in our five-state area of responsibility, almost one half of which (556) are using the spectrum requested by the LMCC. The use varies from primary FM (voice) repeaters, packet cluster digipeaters, Amateur Television Repeaters, linking and control systems. We serve more than 30,000 ARS licensees in our area, many of whom are

involved in public service communications as well as emergency communications through their respective RACES / ARES State and Local organizations. We have computed the average cost of these systems – less labor and site access costs – to be based on $5000.00 per system (excluding the remote receiver systems, control systems and remote base systems which average at a minimum $2000.00/site with more than 200 such sites coordinated in T-MARC's area of responsibility). The total value being provided for the benefit of the ARS and in support of public service is in excess of $2 million dollars and untold manhours in construction, maintenance and technology refreshment of these systems.

Having stated our investment in and use of our ARS systems deployed in the frequency spectrum being sought by the LMCC, I turn now to other factors bearing on my belief the LMCC petition seeking access to 70 cms is incompatible with continued ARS use of this secondary allocation.

1. In their petition, LMCC fails to recognize ARS use of frequencies in the 420-430 MHz spectrum, I doubt, therefore, their statement that sufficient studies have been concluded to determine compatibility.

2. In their petition, LMCC asserts that PRMS operations are of an extremely localized nature and therefore would not interfere with other co-channel / adjacent channel users of the same spectrum due to the nature of PRMS narrowband techniques. This is simply not a proven statement, i.e. the more signals present in any given segment of spectrum the higher the noise floor in that segment, regardless of techniques employed to avoid interference. What is often overlooked by organizations such as LMCC is the fact that ARS radios operate at significantly higher sensitivity levels (on the order of tenths of microvolts, minus

125 to 135 dbm) in order to maximize the operation of a system given limited access to spectrum and the need to serve a community of interest (COI) in a given geographic area. Any increase in noise floor often will inhibit an ARS system from being able to provide the services for which it was designed.

3. LMCC contends that PRMS operations in three US cities along the common border with Canada have operated without interference across the border. This assertion is not supported by the facts as ARS systems in Canada have been adversely affected by the presence and operation of the PRMS systems in those cities. Reports of such interference can be obtained from the St Lawrence Valley ARS Frequency Coordination entity via the ARRL.

Other factors bearing on my concern. The LMCC apparently does not recognize the extent to which the wind profiler system deployed by NOAA and the FAA relies on interference-free operation for the safety of the aircraft, crews and passengers. NOAA has gone far beyond experimentation, wind profiler systems built by Unisys are now widely deployed at almost all major airports having a history of microburst windshear and severe local area turbulence.

LMCC makes the point that PRMS use is for immediate safety and operational necessity; yet they contend that frequencies in the 2 GHz spectrum are not suitable for PRMS use. Our experience is just the opposite. ARS communications, using allocations in and around 2304 MHz, have proven capability to operate at distances well beyond line of sight. PRMS operations in the spectrum at and above 2.0 GHz would meet their immediate needs for short distance, highly-localized, reliable communications. Such an allocation by the FCC to the PRMS community would afford an entirely new market into which technology

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companies would develop and sell their products – expanding our nation's technology base, creating jobs in a multitude of sectors, i.e. R&D, maufacturing, sales, maintenance and repair, installation, while optimizing use of a scarce national resource – our frequency spectrum.

In closing, I want to make the point that although LMCC goes to great lengths in their petition to highlight the attributes and immediate capabilities associated with PRMS operations, they seem to ignore the very same attributes and capabilities the ARS provides using the very spectrum being sought by the LMCC. The history and past performance record of significant accomplish on behalf of public service which ARS operations have provided, at no cost to the public being served, during periods of very similar "life-threatening" scenarios outlined by the LMCC are a direct result of ARS volunteer, not-for-profit efforts and major investments in the 420 to 450 MHz spectrum. It has been said that ARS operations ought to migrate from its present legacy technology to embrace the more modern technologies employing spread spectrum, digital networking (along the lines of trunking systems), CDMA, TDMA, advanced audio compression techniques and the like. To the extent we can afford such a migration we are doing so. However, there are repeated situations wherein the ARS has provided the only reliable emergency communications for extended time periods. This fact should not be overlooked during consideration of the LMCC petition. The very diversity offered by ARS deployed systems represents a true national asset which has time and again proven its value when CMRS systems have become overloaded or suffered single points of failure modes in crises situations. PRMS offers no such remedy for the national good and well-being —— the ARS use of 420 to 450 MHz does.

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